REMARKS

Claims 1 and 16-18 have been amended, and new claims 19-22 have been added. Thus claims 1-22 are pending in the application. No new matter has been added. The specification has been amended to indicate that Serial No. 09/310,295 has been issued as U.S. Patent No. 6,360,038.

Claim Objections

Claims 1, 16 and 17 have been amended to correct various inadvertent typographical errors. Applicant respectfully submits that these claims are now in a condition for allowance.

Rejections under 35 U.S.C. § 102

Claim 18 was rejected under 35 U.S.C. § 102 as being anticipated by Snitzer (U.S. Patent No. 5,457,758). Applicant respectfully traverses this rejection.

Nowhere does Snitzer teach or even suggest an add/drop multiplexer consisting of two optical fibers have perturbations formed in each fiber positioned close together but without the perturbations overlapping, as claimed by Applicant in amended claim 18. Further, there is nothing to be found within the teachings of Snitzer that would render the invention of claim 18 obvious, since the entirety of Snitzer is devoted to describing a device have Bragg gratings formed in the cores of two fibers in a manner that the Bragg gratings of each fiber are entirely

overlapping. Therefore, Applicant respectfully submits that claim 18 is patentable over the cited art and requests its allowance.

Rejections Under 35 U.S.C. § 103

Claims 1-4, 6, 8 and 10-17 were rejected under 35 U.S.C. § 103 as being unpatentable over Snitzer. Applicant respectfully traverses these rejections.

As stated previously, nowhere does Snitzer, or any of the other references of record, taken alone or in combination, teach or even suggest an optical device having an input fiber and a target fiber having perturbations and arranged such that the perturbations of the input fiber and the target fiber do not overlap, as claimed by Applicant in amended claim 1. Furthermore, there is no motivation to be found within Snitzer, or any of the other art of record, that would lead one skilled in the art to combine the references, because even combining the references does not provide the particular structure claimed by Applicant in claim 1. According, Applicant submits that claim 1 as amended is patentable over Snitzer, and any other art of record, and respectfully requests that claim 1, and all of the claims dependent therefrom be allowed.

Regarding claims 10-17, it is apparently the Examiner's position that the inclusion of a third fiber having a third perturbation formed in one of the core and cladding of the third fiber would have been obvious to one of skill in the art. However, the Examiner provides no basis for this observation, other than his belief that "add-ports" are commonly used in the art. Applicant disagrees with this position.

While prior art add/drop multiplexers do indeed include "add-ports", none of the art of record teaches or suggests using a third fiber having a perturbation formed in one of the core and cladding of the third fiber to couple a light input having a second wavelength from the third fiber into the input fiber, as claimed in claim 10 and its dependent claims and claims 16-17. Applicant believes that the pending rejection, in view of the art of record, can only be based on an improper hindsight reconstruction, and should therefore be withdrawn. Further, claims10-15 are dependent from claim 1 and thus include all of the limitations of that claim, limitations which are not disclosed or suggested by Snitzer, as set forth above.

Applicant has added new claims 19-22, the subject matter of which is supported by the specification and drawings as originally filed. For example, new claim 19 is supported by at least the disclosure of FIGS. 1a ,1b, 4, 5 and 8 and the accompanying text of the specification and claim 20 is supported by at least the disclosure of FIG .4 and the accompanying text of the specification. New claims 21 and 22 are supported by the text at pages 5 and 12-13 of the specification as originally filed. For all of the reasons provided above, Applicant believes that new claims 19-22 are patentable over the art of record, and respectfully requests their allowance.

CONCLUSION

Applicant believes that the claims as presented are in condition for allowance and requests their consideration. In the event that the Examiner believes that clarification would be

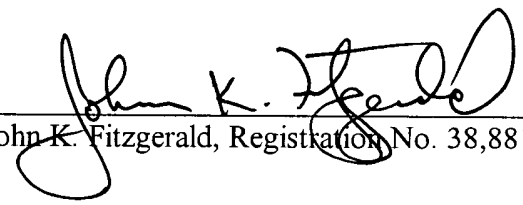
helpful, Applicant's attorney requests that the Examiner contact him to arrange a discussion with the Applicant.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version With Markings To Show Changes Made**."

Please charge any additional fees payable in connection with this Amendment to our Deposit Account No. 06-2425.

Respectfully submitted,

FULWIDER PATTON LEE & UTECHT, LLP



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Version With Markings To Show Changes Made

IN THE SPECIFICATION

Please substitute the following paragraph in the specification as indicated:

Please replace the first paragraph on Page 1of the specification as originally filed with the following:

This application is a continuation of Serial No. 09/310,295 filed May 12, 1999, now U.S. Patent No. [_____] 6,360,038, which is incorporated herein by reference.

IN THE CLAIMS

Please amend the claims as follows:

1. (Amended) An optical device comprising:

an input fiber having a cladding and a core for receiving a light input;

a target fiber having a cladding and a core [for];

the cladding of the input fiber and the cladding of the target fiber being close together to define a coupling region in which light is coupled from the cladding of the input fiber to the cladding of the target fiber;

a first perturbation for wavelength-selective coupling of light from the core of the input fiber into the cladding of the input fiber; and

a second perturbation for wavelength selective coupling of light from the cladding of the target fiber into the core of the target fiber,

wherein at least one of the first and second perturbations is in the cladding and the first perturbation and the second perturbation do not overlap.

16. (Amended) An optical device comprising:

a first fiber having a cladding and a core for receiving a light input;

a second fiber having a cladding and a core, the cladding of the first fiber and the cladding of the second fiber being close together to define a coupling region in which light is coupled from the cladding of the first fiber to the cladding of the second fiber;

a first perturbation for wavelength-selective coupling of light from the core of the [input] first fiber into the cladding of the [input] first fiber;

a second perturbation for wavelength-selective coupling of light from the cladding of the [target] second fiber into the core of the [target] second fiber;

a third fiber having a cladding and a core, the cladding of the third fiber and the cladding of the first fiber being close together to define a coupling region in which light is coupled from the cladding of the third fiber to the cladding of the first fiber;

a third perturbation[s] in the third fiber for wavelength-selective coupling of light from the core of the third fiber into the cladding of the third fiber; and

a fourth perturbation for wavelength-selective coupling of light from the cladding of the [input] first fiber to the core of the [input] first fiber;

the fibers and perturbations being arranged to form an add/drop multiplexer.

17. (Amended) An optical device comprising:

a first fiber having a cladding and a core for receiving a light input and providing an output;

a second fiber having a cladding and a core;

the cladding of the first fiber and the cladding of the second fiber being close together to define a coupling region in which light is coupled from the cladding of the first fiber to the cladding of the second fiber;

a first perturbation for wavelength-selective coupling of light from the core of the first fiber into the cladding of the first fiber;

a second perturbation for wavelength-selective coupling of light form the cladding of the second fiber into the core of the second fiber;

wherein the [target] second fiber receives a light input and the second perturbation provides wavelength-selective coupling from the input of the [target] second fiber to the cladding of the second fiber and the coupling region couples the light from the cladding of the second fiber to the cladding of the first fiber; and

a third perturbation located in the [input] first fiber for wavelength-selective coupling of the light coupled from the cladding of the second fiber into [from] the cladding of the first fiber into the core of the first fiber, the device thereby forming an add/drop multiplexer in which the second fiber is used to add and drop light at the desired wavelengths.

18. (Amended) An add/drop multiplexer consisting essentially of two optical fibers, each having a perturbation formed therein, the fibers positioned close together but without overlapping the perturbations of the fiber to allow [compiling] coupling between the cladding of the two fibers.

19. (New) An optical device comprising:

an input fiber having a cladding and a core for receiving a light input;

a target fiber having a cladding and a core;

the cladding of the input fiber and the cladding of the target fiber being close together to define a coupling region in which light is coupled from the cladding of the input fiber to the cladding of the target fiber;

a first perturbation for wavelength-selective coupling of light from the core of the input fiber into the cladding of the input fiber; and

a second perturbation for wavelength selective coupling of light from the cladding of the target fiber into the core of the target fiber,

wherein one of the first and second perturbations is in the cladding and the other of the first and second perturbations is in the core and the coupling region is between the first and second perturbations in a lengthwise direction.

20. (New) An optical device comprising:

a first fiber having a cladding and a core for receiving a light input;

a second fiber having a cladding and a core, the cladding of the first fiber and the cladding of the second fiber being close together to define a coupling region in which light is coupled from the cladding of the first fiber to the cladding of the second fiber;

a first perturbation for wavelength-selective coupling of light from the core of the first fiber in the cladding of the first fiber;

a second perturbation for wavelength-selective coupling of light from the cladding of the second fiber into the core of the second fiber;

a third fiber having a cladding a core, the cladding of the third fiber and the cladding of the first fiber being close together to define coupling region in which light is coupled from the cladding of the third fiber to the cladding of the first fiber;

a third perturbation in the third fiber for wavelength-selective coupling of light from the core of the third fiber into the cladding of the third fiber;

a fourth perturbation for wavelength-selective coupling of light from the cladding of the first fiber to the core of the first fiber;

wherein at least one but less than all of the perturbations are located in the core of the fibers and the remaining perturbations are located in the cladding of the fibers; and

the fibers and perturbations being arranged to form an add/drop multiplexer.

21. (New) An optical device, comprising:

an optical fiber having a core and a cladding for receiving a light input, the core capable of transmitting light in a core mode and the cladding having a first index of refraction and capable of transmitting light in a cladding mode;

an optical waveguide having a second index of refraction less than the first index of refraction; and

wherein the cladding of the optical fiber is positioned closely to the optical waveguide forming a coupling region between the cladding of the optical fiber and the optical waveguide such that the cladding mode transmitted in the cladding of the optical fiber excites a mode in the optical waveguide.

22. (New) The optical device of claim 21, the optical fiber further comprising a perturbation for wavelength-selective coupling of light transmitted in the core mode by the core of the optical fiber into the cladding mode transmitted by the cladding of the optical fiber.